In The United States Patent and Trademark Office
On Appeal From The Examiner To The Board
of Patent Appeals and Interferences

In re Application of:	Li Mo et al.
Serial No.:	09/589,038
Filing Date:	June 6, 2000
Group Art Unit:	2616
Confirmation No.	9665
Examiner:	Chuong T. Ho
Title:	Method and System for Providing a Protection Path for Connectionless Signals in a Telecommunications Network

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appeal Brief

Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner finally rejecting Claims 1, 5-10, 19 and 22-29 pending in this case as evidenced in the Final Office Action mailed July 25, 2007. Appellants filed a Notice of Appeal on August 28, 2007.

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Real Party In Interest

This application is currently owned by Fujitsu Limited as indicated by an assignment recorded on December 6, 2005, in the Assignment Records of the United States Patent and Trademark Office at Reel 017098, Frame 0787.

Related Appeals and Interferences

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this appeal.

Status of Claims

Claims 1, 5-10, 19 and 22-29 are pending in this application. Claims 1, 5-10, 19, 22-24, and 26-29 all stand rejected under a Final Office Action mailed July 25, 2007. Claim 25 was objected to in the Final Office Action as being dependent on a rejected base claim. Claims 2-4, 11-18, 20-21, and 30-32 have been canceled. Appellants present Claims 1, 5-10, 19 and 22-29 for appeal. Appendix A shows these claims involved in this appeal.

Status of Amendments

All amendments presented by the Appellants were entered by the Examiner before the issuance of a Final Office Action.

Summary of Claimed Subject Matter

Claim 1 of the present application recites a method for providing protection for connectionless signals in a telecommunications network comprising a plurality of nodes. The method includes generating a first protection path (as an example only and not by way of limitation, see Figure 2, path 100) for connectionless signals from each of the nodes (as an example only and not by way of limitation, see Figure 2, nodes 14) to a destination node (as an example only and not by way of limitation, see Figure 2, node 108) (also see, as an example, Page 9, line 13 – Page 10, line 29). In addition, the method includes generating a second protection path (as an example only and not by way of limitation, see Figure 2, path 102) for connectionless signals from each of the nodes to the destination node, the portion of the second protection path from any particular node (for example, any node 14 of Figure 2) to the destination node (for example, node 108 of Figure 2) is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links (again, as an example, see Page 9, line 13 – Page 10, line 29). Furthermore, the method includes routing protection traffic along one of the protection paths to the destination node (as an example only and not by way of limitation, see Page 8, line 29 – Page 9, line 6). Also, in the method, generating the first protection path and generating the second protection path each includes decomposing the telecommunications network into a ring (as an example only and not by way of limitation, see Figures 2 and 3, element 120) and at least one ear (as an example only and not by way of limitation, see Figures 2 and 3, elements 130) (also see, as an example, Page 10, line 7 – Page 12, line 9).

Claim 19 of the present application recites a system for providing protection for connectionless signals in a telecommunications network comprising a plurality of nodes. The system includes a plurality of nodes (as an example only and not by way of limitation, see Figure 2, nodes 14) operable to receive and transmit connectionless signals and be decomposed into a ring (as an example only and not by way of limitation, see Figures 2 and 3, element 120) and at least one ear (as an example only and not by way of limitation, see Figures 2 and 3, elements 130) (also see, as an example, Page 10, line 7 – Page 12, line 9), the plurality of nodes comprising a destination node (as an example only and not by way of limitation, see Figure 2, nodes 108). The system also includes a first protection path for

connectionless signals from each of the nodes to the destination node (as an example only and not by way of limitation, see Figure 2, path 100) and a second protection path for connectionless signals from each of the nodes to the destination node (as an example only and not by way of limitation, see Figure 2, path 102). The portion of the second protection path from any particular node (for example, any node 14 of Figure 2) to the destination node (for example, node 108 of Figure 2) is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links (see, as an example, Page 9, line 13 – Page 10, line 29). Furthermore, each of the nodes is operable to transmit protection traffic for the destination node along the first protection path and along the second protection path (see, as an example, Page 9, line 21 – Page 10, line 6).

Ground of Rejection to be Reviewed on Appeal

Appellants request that the Board review the Examiner's rejection of Claims 1, 5-7, and 19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,226,111 by Chang et al. ("*Chang*") in view of U.S. Patent No. 6,711,125 by Walrand et al. ("*Walrand*"). Furthermore, Appellants request that the Board review the Examiner's rejection of Claims 8-10, 22-24, and 26-29 under 35 U.S.C. § 103(a) as being unpatentable over *Chang* and *Walrand* in view of U.S. Patent No. 5,949,755 by Uphadya et al. ("*Uphadya*") (and thus also the Examiner's objection to Claim 25 as being dependent from rejected Claim 24). Finally, Appellants request that the Board review the Examiner's objection to the drawings.

Argument

The Examiner's rejections/objections of Claims 1, 5-10, 19, and 22-29 and the objection to the drawings is improper, and the Board should withdraw these rejections and objections for the reasons given below.

I. The Examiner's Drawing Objection is Improper

The Final Office Action objects to Figures 2 and 3 of the drawings because it asserts that they are "not clear how generating a second protection path from each of the nodes to the destination node, the second protection path distinct from the first protection path such that the first and second paths do not have any common **nodes** or **links**" (emphasis in original). The Examiner appears to be ignoring the previous amendments to Claims 1 and 19 and Appellants' previous explanation regarding how the drawings show the claimed features. Specifically, Appellants previously amended Claims 1 and 19 such that they now recite that "the portion of the second protection path from any particular node to the destination node is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links" (the underlined portions being added in the previous amendment). Again, Appellants assert that this amendment clarifies the fact that only the portion of the first protection path from any **particular** node (one of nodes 14 in Figures 2 and 3) to the destination node (node 108 in Figures 2 and 3) need be distinct from the portion of the second protection path from that same node to the destination node (as opposed to the entire protection paths 100 and 102 in Figures 2 and 3 being distinct). Appellants respectfully submit that this concept is clearly illustrated in the figures. Thus, withdrawal of this drawing objection is respectfully requested.

II. The Examiner's Rejection of Claims 1, 5-7, and 19 is Improper

Claims 1, 5-7, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang* in view of *Walrand*. Appellants first would like to point out that the Examiner has previously attempted to reject these claims as being unpatentable *Walrand* over in view of *Chang*. *See March 29, 2006 Office Action.* This rejection was overturned during a pre-appeal review process, and accordingly the Examiner issued a new rejection after the pre-

appeal review. *See January 29, 2007 Office Action.* However, after Appellants addressed this new rejection made in the January 2007 Office Action, the Examiner returned to the *Chang-Walrand* rejection – but now simply flipping the order of the references. For the reasons provided below, this rejection is improper.

In order to establish a *prima facie* case of obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one skilled in the art, to modify a reference or combine multiple references; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or combination of references) must teach or suggest all of the claim limitations. M.P.E.P. § 2143. In the present case, a *prima facie* case of obviousness cannot be maintained at least because (even assuming for the sake of argument that the references did suggest or motivate a combination of the references to a person of ordinary skill in the art at the time of the invention) *Chang* and *Walrand*, whether considered singly, in combination with one another, or in combination with information generally available to those of ordinary skill in the art at the time of the invention, fail to disclose all of the elements of the pending claims.

A. Independent Claims 1 and 19 are Allowable

Independent Claim 1 of the present application recites the following limitations:

> A method for providing protection for connectionless signals in a telecommunications network comprising a plurality of nodes, the method comprising:
>
> generating a first protection path for connectionless signals from each of the nodes to a destination node;
>
> generating a second protection path for connectionless signals from each of the nodes to the destination node, the portion of the second protection path from any particular node to the destination node is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links; and
>
> routing protection traffic along one of the protection paths to the destination node;
>
> wherein generating the first protection path and generating the second protection path each comprise decomposing the telecommunications network into a ring and at least one ear.

The cited references fail to disclose, teach or suggest all of these limitations. For example, the Final Office Action asserts that *Chang* discloses generating the claimed first and second protection paths. Claim 1 clearly requires that the first protection path be from each of a plurality nodes in a network to a destination node and that the second protection path be from the *same nodes* to the destination node – they are the same nodes because they are claimed as "the nodes" (referring to the previously recited "plurality of nodes") with respect to both the first and second protection paths. However, the Examiner points to two paths in completely different rings (paths 16_1 and 16_2 of Figure 5 of *Chang*), with the paths *only* having the destination node in common. Therefore, *Chang* clearly does not disclose or suggest "generating a first protection path for connectionless signals from each of the nodes to a destination node" and "generating a second protection path for connectionless signals from each of the nodes to the destination node," as required by Claim 1. Furthermore, paths 14_1 and 16_1 (or 14_2 and 16_2) of Figure 5 of *Chang* also do not meet the claim requirements since these paths do not meet the requirement that "the portion of the second protection path from any particular node to the destination node is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links."

Furthermore, none of the cited references disclose that "generating the first protection path and generating the second protection path each comprise decomposing the telecommunications network into a ring and at least one ear." It is not clear what reference the Examiner believes discloses or suggests this limitation. Appellants presume that Examiner is using either the W*alrand* reference or the previously cited *de Boer* reference for this limitation. The discussion of the rejection mentions *de Boer*, but *de Boer* is not indicated as being part of the Section 103 combination. In any case, none of these references disclose this limitation and neither the Final Office Action nor any previous Office Action has made an attempt to explain how this limitation is disclosed or suggested by any reference. Appellants respectfully assert that this because it is not.

For at least these reasons, Appellants respectfully submit that Claim 1 is in condition for allowance. Furthermore, independent Claim 19 contains limitations similar to those

discussed above with reference to Claim 1. Therefore, for the reasons provided above, Appellants respectfully request allowance of Claims 1 and 19, as well as the claims that depend from these independent claims.

B. Dependent Claims 5-7 are Allowable

In addition to depending from an allowable independent claim, dependent Claims 5-7 also include additional limitations not found in the cited references. For example, Claim 5 recites "charting the ring horizontally beginning with the destination node and ending with the destination node." For a disclosure of this limitation, the Office Action refers to Figure 5 and Column 8, lines 8-18 of *Chang* as allegedly teaching this limitation. Appellants respectfully fail to see how the cited passage relates at all to the recited limitation and the Final Office Action does not explain how it is related. For at least this additional reason, Claim 5 is allowable. Since Claims 6 and 7 share this limitation, Claims 6 and 7 are allowable for at least this additional reason. Furthermore, Claims 6 and 7 include further limitations not addressed by the Office Action (which simply cites to the same disclosure cited for Claim 5, which has nothing to do with the recited limitations). For these reasons, Appellants respectfully request allowance of Claims 5-7.

III. The Examiner's Rejection of Claims 8-10, 22-24 and 26-29 is Improper

Claims 8-10, 22-24 and 26-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chang and Walrand* in view of *Uphadya*. Claims 8-10, 22-24 and 26-29 depend from one of independent Claims 1 and 19 and are thus allowable at least because they include the limitations of either Claim 1 or 19, which have been shown to be in condition for allowance. For at least this reason, Appellants respectfully request allowance of Claims 8-10, 22-24 and 26-29 (and allowance of objected to Claim 25 in unamended form).

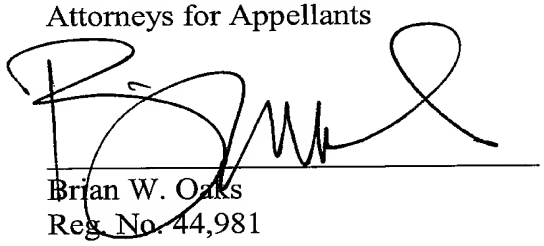
Conclusion

Appellants have demonstrated that the present invention, as claimed, is clearly distinguishable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

Please charge a fee in amount of $510.00 to cover the filing fee for this Appeal Brief to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P. In addition, Appellants hereby take an extension of time for responding to this Appeal Brief for one (1) month. Pursuant to 37 C.F.R. 1.17(e), please charge a fee in amount of $120.00 for this extension of time to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P. The Commissioner is also authorized to charge any other fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Appellants



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Appendix A: Claims on Appeal

1. (Previously Presented) A method for providing protection for connectionless signals in a telecommunications network comprising a plurality of nodes, the method comprising:

generating a first protection path for connectionless signals from each of the nodes to a destination node;

generating a second protection path for connectionless signals from each of the nodes to the destination node, the portion of the second protection path from any particular node to the destination node is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links; and

routing protection traffic along one of the protection paths to the destination node;

wherein generating the first protection path and generating the second protection path each comprise decomposing the telecommunications network into a ring and at least one ear.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The method of Claim 1, decomposing the telecommunications network further comprising charting the ring horizontally beginning with the destination node and ending with the destination node.

6. (Original) The method of Claim 5, decomposing the telecommunications network further comprising ordering the ears and charting the ears horizontally based on the order of the ears.

7. (Original) The method of Claim 6, generating the first protection path further comprising generating the first protection path in a first direction based on the charted ring and ears and generating the second protection path further comprising generating the second protection path in a second direction based on the charted ring and ears.

8. (Original) The method of Claim 1, further comprising:

classifying received traffic as working traffic or protection traffic; and

routing protection traffic comprising routing protection traffic based on the classification of the received traffic as working traffic or protection traffic.

9. (Original) The method of Claim 8, routing protection traffic further comprising routing along the first protection path the protection traffic received on the first protection path and routing along the second protection path the protection traffic received on the second protection path.

10. (Original) The method of Claim 9, further comprising:

determining which of the first and second protection paths to the destination node comprises a shorter path; and

routing received working traffic as protection traffic onto the protection path comprising the shorter path.

Claims 11-18 (Cancelled)

19. (Previously Presented) A system for providing protection for connectionless signals in a telecommunications network comprising a plurality of nodes, the system comprising:

a plurality of nodes operable to receive and transmit connectionless signals and be decomposed into a ring and at least one ear, the plurality of nodes comprising a destination node;

a first protection path for connectionless signals from each of the nodes to the destination node;

a second protection path for connectionless signals from each of the nodes to the destination node, the portion of the second protection path from any particular node to the destination node is distinct from the portion of the first protection path from that particular node to the destination node such that the portions of the first and second protection paths do not have any common nodes or links; and

each of the nodes operable to transmit protection traffic for the destination node along the first protection path and along the second protection path.

20. (Cancelled)

21. (Cancelled)

22. (Original) The system of Claim 19, each of the nodes comprising at least two ports, each port operable to receive and transmit traffic for the node and a protection egress port identifier operable to identify one of the ports as a protection egress port for a specified ingress port and a specified destination node, the protection egress port operable to transmit protection traffic received at the specified ingress port for the specified destination node.

23. (Original) The system of Claim 22, each of the nodes further comprising an egress port evaluator operable to evaluate a status for each of the ports.

24. (Original) The system of Claim 23, each of the nodes further comprising an egress port selector operable to select an egress port for transmitting traffic for the node.

25. (Previously Presented) The system of Claim 24, the egress port selector further operable to discard protection traffic received at the specified ingress port for the specified destination node when a status for the protection egress port is unavailable.

26. (Original) The system of Claim 24, each of the nodes further comprising a working traffic egress port identifier operable to identify one of the ports as a working traffic egress port for a specified ingress port and a specified destination node, the working traffic egress port operable to transmit working traffic received at the specified ingress port for the specified destination node.

27. (Original) The system of Claim 26, each of the nodes further comprising a secondary protection egress port identifier operable to identify one of the ports as a secondary protection egress port for a specified destination node, the secondary protection egress port operable to transmit as protection traffic the working traffic received at the node for the specified destination node.

28. (Original) The system of Claim 27, each of the nodes further comprising a traffic classifier operable to classify received traffic as working traffic or protection traffic.

29. (Original) The system of Claim 28, the egress port selector operable to select an egress port for transmitting traffic for the node based on the classification of the received traffic as working traffic or protection traffic and based on the status for the egress ports.

Claims 30-32 (Cancelled)

Appendix B: Evidence

NONE

Appendix C: Related Proceedings

NONE